



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,679	08/09/2001	Nagayuki Takao	0152-0574P-SP	2364

2292 7590 10/21/2005

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
----------	--------------

1714

DATE MAILED: 10/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,679

Applicant(s)

TAKAO ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3 and 5-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 7/25/05.

It is noted that applicants' filing on 7/25/05 of English translation of foreign priority document previously filed on 8/9/01 perfects the foreign priority filing date.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-3, 5-16, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 53140105 in view of Ohta et al. (U.S. 6,211,265).

The rejection is adequately set forth in paragraph 9 of the office action mailed 4/25/05 and is incorporated here by reference.

4. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 53140105 in view of Ohta et al. as applied to claims 1-3, 5-16, and 19-20 above, and further in view of Doi et al. (U.S. 6,378,999).

The rejection is adequately set forth in paragraph 10 of the office action mailed 4/25/05 and is incorporated here by reference.

Response to Arguments

5. Applicants' arguments regarding Kitamura et al. (U.S. 6,498,222) have been fully considered but they are moot in view of the discontinuation of the use of this reference against the present claims.

6. Applicants' arguments filed 7/25/05 have been fully considered but, with the exception of arguments relating to Kitamura et al., they are not persuasive.

Specifically, applicants argue that JP 53140105 is not a relevant reference against the present claims given that there is no disclosure in JP 53140105 of quick-drying property imparting agent.

It is agreed that there is no disclosure in JP 53140105 of quick-drying property imparting agent which is why JP 53140105 is used in combination with Ohta et al. It is noted that JP 53140105 do disclose that the ink is open to the inclusion of additives including dissolution accelerator (page 3, line 1 and page 6, 2nd full paragraph).

Applicants also argue that JP 53140105 discloses the use of high boiling point organic solvent in contrast to the present claims which require water-soluble solvent having boiling point lower than that of water or vapor pressure higher than that of water. Applicants argue that while JP 53140105 does also disclose the use of low boiling point solvents, there is no motivation to select out the low boiling point solvent for use as the solvent in JP 53140105.

However, while JP 53140105 discloses the use of solvents in addition to the low boiling solvents, the fact remains that JP 53140105 does explicitly disclose the use of low boiling

solvents as presently claimed. Further, JP 53140105 discloses the equivalence and interchangeability of using high boiling solvent with using low boiling solvent.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art, absent evidence to the contrary, to choose any solvent in JP 53140105, including low boiling solvent as present claimed, and thereby arrive at the claimed invention.

Applicants also argue that while Ohta et al. disclose benzotriazole as presently claimed, the reference uses benzotriazole to prevent inks from being dried at the tip of the nozzle which is opposite to result sought by applicants whereby the quick drying agent is added to achieve quick drying not prevention of drying.

It is agreed that Ohta et al. disclose the use of benzotriazole to prevent drying at the tip of the printer nozzles, however, this does not teach against benzotriazole also functioning as quick-drying property imparting agent. While Ohta et al. teach that the benzotriazole prevents drying at specific part of the printer, there is no teaching that the benzotriazole does not impart quick drying to the ink after the ink is ejected from the printer. That is, the benzotriazole can function both to prevent drying at the tip of the printer nozzle and also to impart quick drying to the ink after ejection of the ink onto the substrate from the printer.

Further, given that Ohta et al. disclose benzotriazole identical to that presently claimed, i.e. 1H-benzotriazole-1-methanol, the benzotriazole would intrinsically function as quick-drying property imparting agent. It is noted that the courts have held that “a compound and all its properties are mutually inseparable”, *In re Papesch*, 315F.2d 381, 137 USPQ 42, 51 (CCPA 1963). Further, the courts have held that a chemical composition and its properties are

Art Unit: 1714

inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present.”, *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Applicants also argue that Ohta et al. disclose the use of solvent having lower vapor pressure than water so that the benzotriazole of Ohta et al. would not function in the same manner in applicants’ invention.

Firstly, it is noted that the presence of water-soluble organic solvent having lower vapor pressure than water is not required, i.e. “may” further comprise, in Ohta et al. Thus, the benzotriazole can function both with and without such solvent. Further, it is noted that that Ohta et al. is not used for its teaching of the presently claimed water-soluble solvent given that JP 53140105 already teaches the use of such solvent. Rather, Ohta et al. is only used for its teaching of 1H-benzotriazole-1-methanol.

Applicants also argue that Ohta et al. do not disclose the use of fluorescent dye.

However, it is noted that only claims 13-15 require the use of fluorescent dye. Further, note that Ohta et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely the use of 1H-benzotriazole-1-methanol in ink jet inks, and in combination with the primary reference, discloses the presently claimed invention.

Art Unit: 1714

Applicants also argue that Doi et al. is primarily drawn to pigment ink and do not disclose the use of dye that has solubility in water lower than solubility in water-soluble solvent to attain good drying properties as presently claimed.

However, while Doi et al. may prefer pigments, it is significant to note that Doi et al. also disclose the use of water-insoluble dyes that would clearly intrinsically possess solubility in water lower than solubility in water-soluble solvent. Further, even if Doi et al. did not possess dye identical to that presently claimed, note that Doi et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely surfactants utilized in ink jet inks, and in combination with the primary reference, discloses the presently claimed invention.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

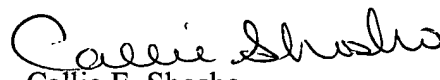
Art Unit: 1714

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
10/15/05